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ABSTRACT

A study designed to determine what characterizes effective instructional explanation in reading involved reading instruction, by the researcher, of four reading groups and one child in a third/fourth grade classroom in the fall, and two groups plus one child the remainder of the academic year. The researcher was observed 32 times during the year; field notes were taken and lessons were audio tape recorded and/or video recorded and then transcribed. Answers were sought for the following research questions: (1) What characterizes the research participant's explanations during reading instruction? (2) What characterizes the teacher-student interactions during the research participant's instruction? (3) How were the lessons organized? (4) Is there any evidence regarding the effectiveness of explanation in creating student outcomes? Results of the study have provided rich descriptive data to conceptualize the nature of instructional explanation, including three aspects of instructional explanation that go beyond a simple concept of expository teacher talk. Data revealed no relationship between instruction and student gains, and a disparity between what the research participant did when explaining as a practicing teacher and the way he conceptualized explanation behavior for his methods-course students. The findings suggest that instruction is much more complex than models, opinion, or much of the previous research have indicated, and that theoretical models of instruction have little or no reliability as far as identification of essential and critical variables. (EL)

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The Subtleties and Complexities of Instructional Explanation in Reading: A Case Study of an Expert

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Abstract

The teacher effectiveness literature has recently emphasized the importance of active teaching and explicit explanation in creating student outcomes. However, few descriptive data are available to illustrate what one actually does when providing such explanations. This study meets this need. A researcher of instructional explanation in reading was observed for one academic year as he taught reading in a third/fourth grade classroom. His instruction was analyzed as a means for generating a rich conceptualization of explanation. Insights and hypotheses are provided regarding both the nature of instructional explanation and the disparity between abstractly generated conceptualizations and conceptualizations based on the realities of practice.

SUBTLETIES AND COMPLEXITIES OF INSTRUCTIONAL EXPLANATION IN READING: A CASE STUDY OF AN EXPERT

Joyce Putnam and Gerald G. Duffy[1]

The research on teacher effectiveness emphasizes the importance of explanation. Good (1983) has called such explanation "active teaching," Rosenshine (1983) has referred to it as "redundant explanation" and Fisher, et al. have described it as "presentations." In all cases, the teacher's role as an explainer is given priority.

One recent study has directly studied the effects of explicit explanation during reading (Duffy, Book & Roehler, 1983). This study conceptualized instructional explanation as "teacher talk;" that is, at the beginning of lessons, teachers presented expository explanations that explicitly stated what was being taught, why it was being taught, and how to do it.

However, early results (Roehler & Duffy, in press) indicated that explanation may be more than expository teacher talk. Hence, the model conceptualized by the researchers and taught to the participating teachers may have been too simplistic.

These preliminary insights argued for the need to carefully describe the intricacies of instructional explanation. It was reasoned that one way to obtain such a rich description was to study an expert teacher who espouses the use of explicit explanation as a major instructional technique. This need for a rich description of instructional explanation coincided with the return to the elementary classroom of one of the major proponents of instructional explanation in reading. The co-coordinator of

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[1] Joyce Putnam is a member of and Gerald Duffy the co-coordinator of the Teacher Explanation Project. Putnam is an associate professor and Duffy, a professor, with the Department of Teacher Education.

the research in explicit explanation in reading, as part of a teacher education assignment, was to provide reading instruction in a third-fourth grade classroom in an urban public school during the 1982-83 school year. It was decided to capitalize on this opportunity. The researcher was assigned a participant observer who documented and analyzed his instruction for the academic year. This case study is the result of that effort.

The Problem

The study was designed to answer the general question, "What characterizes effective instructional explanation in reading?". The specific research questions are as follows:

1. What characterizes the research participant's explanations during reading instruction?
2. What characterizes the teacher-student interactions during the research participant's instruction?
3. How were the lessons organized?
4. Is there any evidence regarding the effectiveness of explanation in creating student outcomes?

Procedures

The Participant

The participant of the study is a reading teacher educator and researcher. He has worked in field based teacher education programs during his sixteen year tenure at a major midwest university, and he has devoted a portion of two sabbatical leaves to teaching in an elementary school classroom. His research has focused on reading teacher effectiveness and instructional explanation. During this study, he was teaching three reading methods courses to undergraduate students enrolled in a field-based program housed in the public school building in which he was teaching a third-fourth grade class for demonstration purposes. He also observed the

undergraduates as they taught their own lessons to pupils in other teaching stations in the building.

The Setting

This study was conducted in a K-6 elementary school located in a lower-middle socio-economic-status neighborhood in an urban midwest city. The school was naturally integrated and was not involved in the district's court ordered busing program. The building had 15 classrooms. A university undergraduate program was located in the building and 14 of the classroom teachers had undergraduate students placed in their classrooms for four half-days a week. The teachers had worked with university programs for at least 10 years and were accustomed to having professors and undergraduate and graduate students in and out of their classrooms during the day.

The specific classroom where the study was conducted was a split third/fourth grade. The room was average size, light and airy, and one wall of windows looked out on the playground. One door led from the room to a hallway. The room contained colorful bulletin boards and work produced by pupils. A multitude of objects and materials from nature were hung from the ceiling and placed on counters and tables.

The classroom was originally organized to provide for small group work and interaction among the students and/or teacher. In October, the organization was changed based on the data the teacher and research participant collected during the initial weeks of school. A second organization of the classroom environment was established. The new one allowed for less small group informal interactions and provided for small group reading instruction near the green (chalk) boards. Diagrams of the room are provided in Figure 1 and Figure 2.

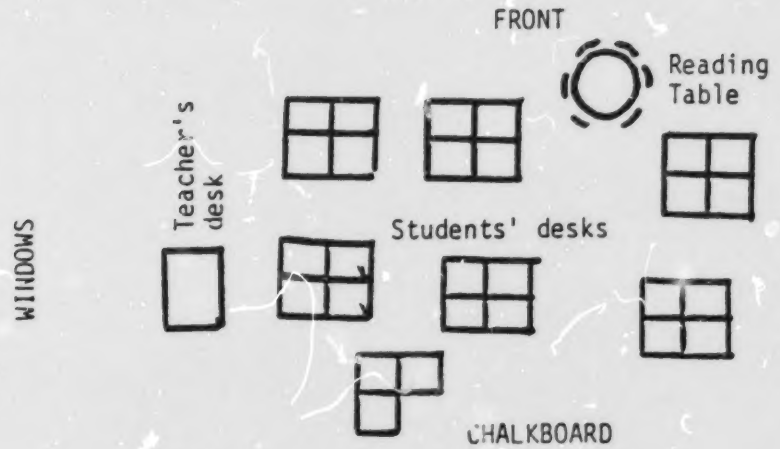

Figure 1. First organization of classroom environment.

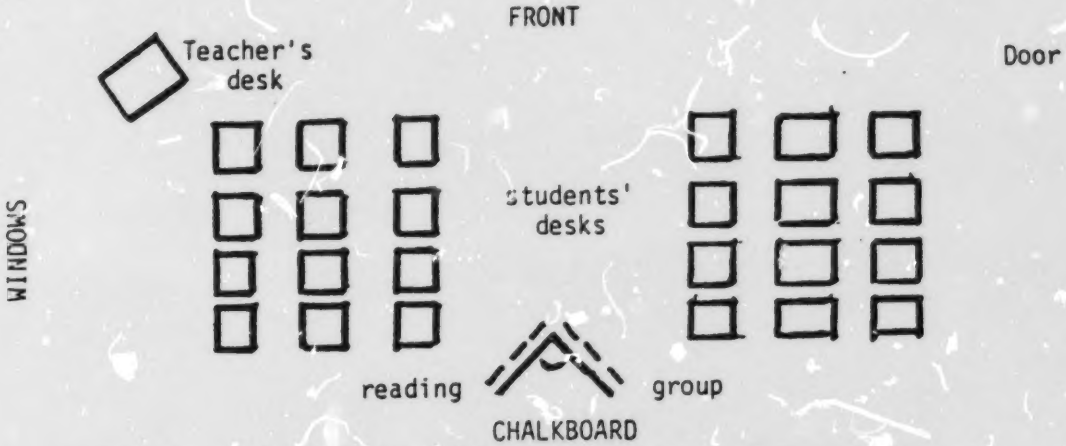

Figure 2. Second organization of classroom environment.

The Students

The twenty-five (35% minority) children were either third or fourth graders. Twenty-four were placed in four reading groups. One child was given individual instruction. The research participant was responsible for the individual child and for Group A and Group B. Group A were those readers who had the most problems in the area of reading and Group B contained the best readers in the classroom. These groups were formed on the basis of data collected by the research participant at the beginning of the year.

On the Gates-MacGintie pretest, the students in these two groups scored as follows in September 198_.

Group A (Low)			Group B (High)		
	Vocabulary	Comprehension		Vocabulary	Comprehension
1.	2.4	3.6	1.	5.6	7.4
2.	2.5	2.8	2.	5.3	4.1
3.	2.5	2.6	3.	5.3	7.4
4.	2.7	2.6	4.	6.6	7.4
5.	2.7	3.2	5.	5.6	7.4
6.			6.	6.6	7.4

Daily Routine

From September until mid-December, the research participant met all four groups, two days a week. From January until the end of May, he met the top and low groups and in addition provided individualized instruction for one pupil.

During the observer's visits to the classroom, the routine was basically the same. School began at 8:40 a.m. As the pupils entered the room, they engaged in conversations with each other and the teacher. The regular classroom teacher handled the classroom administration and opening routines. The reading period began with USSR (uninterrupted sustained silent reading) at about 8:50 a.m. On Tuesday and Thursday between 9:00 and 9:05 a.m., the research participant gained the group's attention, provided a brief period of whole group instruction, reviewed the day's agenda, and called his first reading group. Usually the individual student was taught first, the low group met second, the high group met third, and then the individual student was met again at the end of the period.

During the months of September and October, while the research participant taught the reading groups, the regular teacher observed and/or worked at his desk. During November and December, the regular teacher monitored pupils who worked in learning centers. From January to the end of the year, the regular teacher taught Groups C and D. During the researcher participant's visits, undergraduate teacher education students assigned to the building frequently observed his instruction in groups of eight at a time.

The research participant used a basal text with each reading group and trade books with the individual student. He also provided practice work which he designed himself. Workbook assignments were also given.

The divided responsibility between the research participant and classroom teacher did not appear to interfere with instruction. Pupils, the regular teacher, and the researcher felt things ran smoothly and that it was clear which person was responsible for which things.

Data Collection

During the academic year, the research participant was observed 32 times. During each observation, field notes were taken and lessons were audio tape recorded and/or video recorded. The video recording occurred four times, each followed by a stimulated recall interview with the researcher. He was interviewed on ten other occasions. The observer employed ethnographic field study methods for taking field notes, rewriting the notes based on reflection, and on analysis of the audio-tape transcriptions. The questions for each interview were developed on the basis of the observer's analysis of the observation and of the recorded data. The data collection and analysis were guided by the research questions stated earlier.

Data Analysis

As the field notes, tapes of classroom teaching sessions and interviews were completed, they were transcribed. The analysis was conducted in four steps as follows:

Step One

A trained rater coded the lessons that had been taped. The coding system was developed by the Teacher Explanation Project (see Appendix A for a copy of coding system). The coding system included the following five categories:

a. mental processing,
b. usefulness,
c. features,
d. sequence,
e. examples.

These categories focused on the teacher's explicit presentations about the mental processing required to do a particular reading task. The total possible score was 10. The description of each category is as follows.

a. Mental processing--the teacher explicitly states the mental process the students need to use to do the task.
b. Usefulness--the teacher explicitly states the reason why the immediate use of the process is helpful.
c. Features--the teacher explicitly describes the features to focus on when doing the mental processing.
d. Sequence--the teacher explicitly states the sequence to follow when doing the mental processing.
e. Example--the teacher provides an explicit example of the mental processing.

Each category received a rating of zero, one, or two depending upon the lack and/or presence explicitness. The composite rating was a total of the five categories.

Step Two

Without looking at the codings, the observer read all the lesson and interview transcripts and field notes, noting themes, questions, and potential findings as they related to the research questions.

Step Three

The observer coded the transcripts and interview notes to identify the various parts of the lessons (introduction, explanation, interactive instruction, and evaluation). Notes were made in the margins of the transcripts.

Step Four

The data from the coding of the lessons and from the coding of the transcripts and interviews were communicated to the subject in order to determine whether these seemed plausible to him, whether he was aware of some of the findings, and whether he could add any new information that would clarify and/or modify the findings identified by the observer.

Step Five

The data were then synthesized by the researcher for reporting.

Findings

The findings are reported in four sections corresponding with the four research questions.

What Characterizes the Research Participant's Explanation?

Five characteristics of explanation were found. The first characteristic is the content of explanation--what was explained. According to the research subject, explanation is characterized by an emphasis on process rather than on specific reading skills. These processes relate to teaching children how to get information rather than the information itself. The participant said he consistently attempted to focus his explanations on strategic reading processes. When reading transcripts or viewing videotapes with the observer, the participant identified examples of appropriate and inappropriate content for explanation. He noted that facts from the selection being read (e.g., who was the main character?) and traditional reading skills (e.g., naming the sound of the sh digraph) were not appropriate. An example of appropriate content for explanation as defined and demonstrated by the participant when talking to students during a lesson taught on November 30, 1982 follows:

> ...You should know words at sight. If you find a word you don't know, you should first guess, second look at word parts and third sound it out...

This is an example of a general strategic process that included specific sub-strategies. Each sub-strategy consisted of three or four steps which the subject taught the students.

The second characteristic of explanation is that it contains three types of information. First, explanation included statements concerning what would be learned (for example, how to figure out words you don't know). Second, the teacher stated why the content was to be learned. This statement provided an explanation of the usefulness to the student. For example, when reading a selection, you may encounter a word you don't know and, if you can't figure it out, you won't know what the author's message is. Third, the explanation included the steps in a particular strategic sequence.

Third, it was found that the research participant used two types of explanation. The first type was what he had planned to say. For example, the teacher planned for and said in the early part of lessons what was to be learned, why it was to be learned, and how the pupil would do the process. In contrast, the second type of explanation was generated "on the spot." It was a spontaneous response to student confusion, and the function of these spontaneous statements was clarification. They were not planned and, thus, required teacher understanding of the structure of the process as well as the long term goals. His ability to process and probe student comments and questions was essential to generating spontaneous explanations that connected effectively with the pupil's thoughts.

The fourth characteristic of the participant's explanation was the employment of a "full cycle" of teacher explanation. For example, first he explained what, how and why. Second, he demonstrated the process being learned. Third, he asked the students to show or tell the particular steps in the process. Thus, explanation involved three elements: telling,

illustrating and eliciting responses from pupils. These three behaviors represented the cycle of explanation behavior which was most frequently observed.

The fifth characteristic is that the participant's explanation was undergirded by knowledge and beliefs. His use of his knowledge about the structure of reading, the process of reading, materials, instruction, and long term goals was evident as he discussed his instruction. There was consistency between his statements and his behaviors (see Putnam and Duffy, in press). This articulated knowledge and belief system was the basis of his ability to attend to student responses, to process various input during instructional interactions, to keep task objectives in mind and to be able to resist the urge to settle for less than process responses. An example of a belief that undergirded the explanation follows. According to the research participant, the major goal of the year's reading lessons for Group A (low group) was to make the students aware of how to become better readers. The participant reported that this goal caused him to focus on teaching strategies of (1) word identification and (2) comprehension. Analyses of the lesson content indicates that he in fact planned and taught to such goals (13 lessons out of 32 were word identification and 19 focused on comprehension).

In sum, five main characteristics of explanation behavior were observed. They are the (1) a focus on process; (2) an emphasis on what, why, how; (3) a mix of planned and spontaneous explanation; (4) a cycle of teacher talk, teacher illustration, and student response; and (5) a foundation based on knowledge and beliefs.

What Characterizes the Teacher-Student Interactions During Instruction?

The second research question examined was the teacher-student interactions. It was found that the research participant's reading lessons can be characterized as "teacher talk" when a skill or concept is being introduced and as "teacher-student talk" following the introduction of a skill or concept.

Most of the participant's "teacher talk" was for the purpose of explaining. During this time, students were not encouraged to interact with the teacher (research participant) and he did not verbally or nonverbally respond to spontaneous student talk. Much of each lesson however, was interactive "teacher-student talk." Six particular types of interactive instruction were documented.

Student schema building or testing. This type of interaction occurred near the end of the participant's introductory explanation. Here the students spoke out, sometimes to no one in particular but most frequently as comments or questions directed to the research participant. These comments were responded to by other members of the group, but never by the participant. The interaction was between the individual student's prior knowledge and what the teacher was explaining or between pupil and pupil. At times, the research participant appeared unaware of the comments or not ready for the interaction (planned ignoring). During the early part of the year, he treated these comments as a management concern and ignored them because they didn't cause a major problem. At no time did he consciously incorporate these interactions into the instructional explanation.

Questions/answer. The interaction most frequently observed was "question-answer" patterns. The participant asked questions related to (a) the specific what and why of the strategic process being taught; (b) the

larger context of "What do I do when..." where the specific process was to be employed; (c) the relationship between previous lessons and the current one, and/or (d) the use of the process to get meaning from text. This interaction consisted of the teacher asking questions, the students responding and the teacher giving either corrective feedback or praise.

Teacher-guided application. The third type of interaction occurred when the teacher guided the pupils in using a strategic process. The guiding was done by pointing to certain places in a reading selection and asking students questions that required them to use the process. Here, random student responses were sanctioned by the teacher. When he heard incorrect responses, he gave corrective feedback or waited momentarily while the students discussed the incorrect point and themselves arrived at the correct response. The teacher stuck with this interaction until the students correctly used the process.

Correcting practice work. Both the fourth and fifth types of interaction occurred when students received corrected practice sheets. In the fourth type, the teacher used a turn-taking format, going from student to student, going over answers to the practice sheets. This was used to reinforce students when almost everyone got everything correct.

The fifth type was used when a student or students missed a key item. Here, the research participant asked a series of questions, not allowing others to speak. The series of questions and his supportive responses to the student's answers were structured in to get the student to give the correct response. Then the teacher and student went back over the material again with less teacher talk. The teacher made supportive statements and continued the focus until the student could verbalize the process.

Student dominated. The sixth and final type of interaction was student-dominated discussions about the use of strategic processes as they were applied to get meaning from text. This type of interaction occurred during the latter one-fourth of the academic year. Here, the teacher asked students to correct their thinking about content. During only this type of interaction did the teacher spend time focusing on content accuracy as a product of the correct use of the processes taught during the year.

In summary, it was found that, except for the question-answer type, the interactions were not planned. The teacher's understanding of the content and the long term goals seemed to allow him to listen to a student's response and to use the information to continue the instruction. He challenged students when they were ready and avoided challenging them when it might have caused confusion. It was also interesting that these spontaneous interactions represented a significant portion of the instructional time during lessons.

The research participant's lessons followed a distinct pattern. The teacher directed the first three parts of each lesson and the fourth, the student directed. The parts were

1. review and feedback,
2. new information,
3. guided practice and application, and
4. independent practice and application.

Part 1: Review and Feedback

In part 1 of teacher-directed lessons, the research participant had three purposes: (1) to review and reinforce strategic process previously taught, (2) to give students corrective feedback about independent practice sheets, and (3) to have students practice the correct mental process. As noted on the following list, Part 1 consisted of six steps.

1. Greeting and management of students.

2. Hand in independent practice work.

3. Handout papers corrected by teacher and recall purpose of worksheet.

4. Teacher and students go over item (students receive general praise or told item is wrong).

   a. Turn-taking technique: Teacher calls on first student to his left at table and student explains his/her response to item. Teacher calls on second one, etc.

   b. Tutoring technique: Teacher asks questions of one student about an item s/he missed. Questioning continues until student demonstrates, without teacher guidance, the mental process.

5. Summary or closure statement.

6. Papers are put away or collected by teacher, new materials brought out (within lesson transaction).

Part 1 began with the greeting and socialization of students. At the beginning of the year, the focus was primarily on management (e.g., sit here, have you got your...?). By January, it shifted more to social interactions (e.g., how are you today, glad you're back). By March, it had focused on tasks (e.g., we are going to start... I've got this problem...) The actual time involved in Step 1 decreased from about 2 minutes and 15 seconds (longest period in the fall of the year) to about 10 seconds in the spring of the year. From February on, greetings were confined to smiles, nods and touches. Thus, by the end of February, conversation began with the task at hand. Step 2 in Part 1 consisted of the teacher simply asking the students to hand in papers from their independent work. On occasion, he checked on where they might have had trouble. For instance, he might say "...Let's go over these quickly. I don't want to spend a lot of time, I want to take these home and correct them . . ." The third step was to hand back corrected papers and to focus the students' attention on the

purpose of the task by saying such things as "...We'll go over the ones I corrected from last time. I want you to see how you did." or "Now, let's see if we can go back and remember first of all what it was we were doing when we were doing this particular ditto sheet right here. Who can tell me what we were learning to do there?" (points to sheet in front of a student).

When students replied to his initiating questions by giving nonstrategic process answers, the teacher used questions or statements to facilitate a linkage between the worksheet task and strategic processes. He either had students verbalize the strategic process being studied or he made the linkage himself. For example, he would ask "Was there anything special that we were learning about reading when we were doing that sheet? How would this make you a better reader?" or he would make a statement such as, "It's like when we talked about words before and I said, 'Okay, now in order for you to be a good reader, you've got to know what to do with words.' First, you try to figure them out by sight, and then you try to guess when you don't know it at sight..." The fourth step was to go over the items on the papers handed in. Early in the year, the teacher established the procedure of having the paper read. For example, the routine and expectations were communicated as follows:

T: I'm starting to keep a chart on each one of you for seat work. Last time you did a worksheet on look alikes. See here on the chart, I got a paper from everybody but Tim. Do you remember this paper right here, Tim?

S: Yeah, I can go get that right now.

T: Oh, good, go and get that for me so that I can correct it. (Tim leaves group. The teacher points to everyone's name on the chart showing them their check mark and handing back the paper. Tim comes back to the group and hands his paper to the teacher who lays the chart aside, scans Tim's paper and marks two items wrong and gives Tim the corrected paper.)

T: Now we'll go over the items you had trouble doing. (10-19-82).

S: Can I erase 'em and make 'em correct?

T: Yes. What I want you to do is wait until...

S: What if you give us a real hard paper and somebody gets the whole paper wrong?

T: If I give you a really hard paper and somebody gets the whole paper wrong, that's my fault. That should never happen. I should teach you how to do it, before I give you the paper. Okay?

S: Yeah.

T: Okay. That's the system. You turn in your seatwork papers, I check them and record them on the chart, we go over the sheets together, you correct any problems you were having. We're going to do two things today. First go over the worksheets...When you're reading you want to be able to recognize the words instantly or quickly if you can. And what was the ways that we talked about last time, that we try to distinguish words so that you get them instantly? What did we say the secret was for doing that?..."

Thus the teacher communicated that papers would be handed in (and generally when), what he would do with them (check and record), and what he and the group would do with them (go over and change answers). Once the checking of papers began, the research participant used either turn-taking or a tutoring technique. The turn-taking technique was characterized by quick movement and was used when most students had correctly answered almost all items. Interactions were typically as follows:

T: Are you ready, Lowell? The animal went hunting in the...

S: Forest?

T: Excellent! Why didn't you say he went hunting in the Volkswagon?

S: Don't make sense.

T: Doesn't make sense, right, okay. Are you ready, Lucrucia?

S: Hmmm-hm...

The tutoring strategy was characterized by an intense teacher and student interaction. The teacher and one student interact together until the

student performs the mental process on his/her own. These interactions start when the teacher has the student focus on the item s/he missed on the practice sheet. The teacher asks a question requiring a strategy-process answer. Incorrect responses are followed by the teacher telling the student what is wrong and what s/he should be thinking. Then the student and teacher go through an example with the teacher modeling so that the student will give correct responses. The teacher continues until the student (1) gives a correct process response on his/her own or (2) is obviously confused and not attending to correct cues. The fifth step in Part 1 was a teacher summary of what the teacher and students were working on during the lesson. This led to the sixth step, which is the transition to Part 2: Papers were put away and the teacher told the students what materials if any to put in front of them and/or where to focus their attention (e.g., listen to me, look up here, find page 211 and put your finger on the second paragraph).

Part 2: New Topic or New Information

When the lesson involved new information which the teacher had not introduced before, the teacher would move to Part 2 of the teacher directed lesson. The purposes of this part were to communicate strategic process to students including (1) introducing the what, why, and when and illustrating use of process in text, and (2) evaluating students' attention and initial understanding. The steps were:

1. Teacher introduces new information to students,
   (a) focuses student attention,
   (b) explains the what, why, and how of the topic or
   (c) changes to teacher/student interaction, continuing lesson

2. Teacher interacts with students,
   (a) focuses their attention;
   (b) asks questions, responds to answers, uses answers to guide selection of new example or asks new questions; and
   (c) making the transition to practice or application.

During the introduction, pupil talk was not encouraged. When lessons had lengthy teacher explanations (beyond approximately 25 lines of typed transcripts), the teacher broke up his "teacher talk" with one or two questions to make sure pupils were with him. At other times, the students made comments, asked questions or responded to another student's comments. The teacher on occasion paused for a second or two but did not verbally or physically respond to the comments. The pupils appeared to be testing the linkages they were making in their thoughts or verbalizing connections they were making. The focus of this part of the lesson was the strategic process as explained by the teacher. The following illustrates this teacher's "explanation behavior" when introducing new information:

T: Right now, you're going to pay attention to something else, okay? Now Kosher, put your pencil down and pay attention up here. What I want to teach you today is something that you can use whenever you read the story to begin to make a prediction about what's going to happen in that story. Every story you ever read, almost every story you ever read, has three parts to it. The first part is some kind of a problem, right? Every story in some way or another is about a problem, okay. Then there's something that happens about that problem and what do you suppose the third thing is?
Can you make a prediction about what the third thing is? If this is a problem and something happens with the problem, what happens here?

S: You can solve it?

T: You can solve the problem. Sure, okay. Now this helps you when you read, because when you start a story, if you think ahead, you're reading the story and you think to yourself, okay when I read this story I want to understand what the problem is in this story, I want to understand what happened about that problem as I read the story. And when I get done, I want to know how that problem has been solved. Those are the three things, the three things you're trying to find out when you read a story, okay? Whether it's a story in this book or a story in the book you're reading in your, in U.S.S.R., okay? Now, the way I want to work on this is if you just finished reading Evan's Point, right? There were two parts in that story. Remember the first? What was the first part of Evan's Point?

Sometimes, the research participant engaged in interactive instruction. Usually, this followed an introduction, either immediately during the same instructional time period or in a subsequent lesson. The following is an example of the latter.

T: Last time I told you that when you're reading you want to be able to recognize the words instantly. What is the secret for distinguishing one word from another?
S: Different.
T: All right. And when we learn to look for words, the different parts of words, we recognize them quickly. Like what is that word?
S: Katy.
S: Cow.
S: Country.
S: Learn.
S: (inaudible)
S: Bottom
S: Button
S: Bow
S: Both
S: Beth...Safely
S: Softly
S: (inaudible)
S: Ground
S: (inaudible)
S: He said "ground, grand."
T: You have to look for the differences, don't you? If it was ground, it would be a "o" in the middle, right? What's the difference?
S: There's a "o" in it.
T: That's right. Now, that's the first thing that you want to do. If you're reading along, you want to be able to recognize those words instantly. All right? If, however, you don't recognize a word instantly, if you don't know the word "excite," I want you to know what I expect you to do as the first fallback from there. If we read along and come to a sentence like this one...
(Chalk on chalkboard sounds) Let's say there's a word in that spot and you don't know that word, all right? You don't recognize it at sight. You can't say that word, okay? What I want you to do is to try to figure out that word, I want you to try to guess what is is. And I want you to guess what it is by the clues in the rest of the sentence. Reese already knows what should go in that blank. What should go in that blank, Reese?
S: Bat...
T: How do you know that "bat" is gonna go in that blank? Reese, can you explain it to us?
S: I just know.
T: You just know. But I want you to know how you know. How do you know?

S: The way it looks and stuff. The way the letters are "wroten" down.
T: Well, maybe. But let me show you. And then, you do what I do okay? I know that in this blank there's going to be the word "bat" because when a boy hits the ball, what does a boy usually hit a ball with?
S: A bat.
T: Okay. Have you ever heard of a boy hitting a ball with ...
S: A tennis racket.
T: It could be a tennis racket, sure. The boy hit the ball with the tennis racket. The boy hit the ball with the bat. The boy hit the ball with the golf club. Could you say that? Sure, if you're a golfer.
S: He'd probably break the golf stick.
T: There are a lot of things that a boy could hit a ball ball with. But you have to put in the blank something, you have to guess a word that makes sense there. All right? Now, you use that clue first. Then you look here to that first letter. If I say, the boy hit the ball with the... your mind is thinking it's got to be something that a boy hits the ball with that starts with this letter... What's it got to be? What do we do now? What if you read along and say the boy hit the ball with... and you're beginning to think bat but you look here and... Now, what's it gotta be?
S: Tennis racket.
T: We were gonna give Kosher a chance that time. Were you gonna say tennis racket, Kosher? Would that work? Does tennis racket make sense there? Well, does it? Can you hit a ball with a tennis racket? Sure? Does tennis racket begin with...
S: T
T: Okay, so it fits. Let me give you another one and let's see if we can think that one through. All right. (Chalk on chalkboard sounds)
S: Oh, it's this one. It's this one right here.
S: I know.
S: I know the word.
T: Okay. We saw a...
S: Blank
T: ... of dogs on the way to school. This word is a word you don't know. Now, if you don't know that word, you've got to figure out what it is and you can guess what it is if you think about the other words in the sentence. Now let's see if we can do this one together, all right? What's happening here? What did you see? Who can tell me what did you see?
S: Some dogs.
T: Some dogs, okay. Now, it's a word here that's going to tell you something about the dogs, okay? Now what could go in there and make sense. We saw a ... of dogs? What?
S: A truck.
T: A truck of dogs? It doesn't quite make sense. You're on the right track.
S: A crowd.
T: You saw a crowd of dogs. Okay, that might make sense. A crowd of dogs. What else could it be?
S: A group?

T: A group of dogs, very good. What else could it be? Kosher? Think of anything else? A crowd of dogs. A group of dogs.
S: A herd of dogs, very good. Excellent. Lowell?
T: A mess of dogs, very good. Okay, now how do we know if the words you put in there is the right one... how do you know...
S: I think (inaudible).
T: Okay. How are you gonna know that?
S: (inaudible)
T: What did we do with the other sentence? What did we look at in the word to figure out which of those choices was right?
S: Oh-oh.
T: We looked at the first letter, okay? Now if I put the first letter up there, is this going to be "we saw a mess of dogs"? Does that work?
S: A crowd.
T: Does crowd begin with "p?" All right? That won't work either, right? What would it be? It's not mess, it's not herd, it's not crowd, it's not group, it's going to be what? Okay, here's the way we do it.
S: Pr-r-r...
T: Yeah, you're right.
S: A parade.
S: No, a bunch.
T: That might be...that works. Doesn't it? If you say I saw a... you get your mouth ready to say that "p" ... parade of dogs. That makes sense. But, let me give you another clue. Now, what's it got to be? Can it be parade any more?
S: A park.
T: A park of dogs.
S: No.
S: Hmm-mmm.
T: Why doesn't that work? Does that make sense?
S: I know, I know. A pack!
T: Very good. Reese, are you ever thinking good. Does that make sense, Kosher?
S: Pack of dogs?
T: I saw a pack of dogs. Does that make sense? Sound like something you might say? Does it? Would you say I saw a pack of dogs? What would you say?
S: I saw some dogs.
T: Okay. If somebody else said that, would you know what they meant? Okay, so it makes sense. Let's try another one. Quick. Let's try... (Chalk on chalkboard)
S: Let me see what he write...
T: Oh, right here. Some animals are...
S: blank
S: ... in the woods
T: Okay, now whatever goes in this sentence, Kosher, has to be about what?
S: Animals.
T: It has to be something that they do where, Kosher?
S: In the woods.
T: In the woods, okay. What is something that some animals are doing in the woods, here? What could that be?
S: Hunting.

T: Good. Very good. That would make sense, wouldn't it?
S: Yup. Some animals are...
T: All right. What else, Timmy? What could they be doing? Some animals are...
S: Fighting or eating.
T: Fighting? All right. Good.
S: Every time I think of a word, someone ends up taking it.
T: What else could it be, Reese?
S: Eating.
T: Mmm-hmm
S: He took it again.
T: Now, let's say that the word here begins with this letter right here.
S: What is it?
T: That's an "r." Now what do you have to do? You have to say what makes sense that begins with "r." Lowell?
S: Running?
T: Good. That's excellent. What if I put at the end of the word...What if I had this at the end of the word, do you think we'd be right, Christie?
S: Racing?
T: It could be racing. Could it still be running?
S: Yeah.
T: Could it still be running? Sure it could. What if I put this in there? Now, can it be racing?
S: No, it can't be racing.
S: Running, running!
T: Gotta be running, sure. Good for you! Okay, now. Let me show you how this works when you're really trying to figure out a word. I think that I've got a sentence here with a word in it that you don't know. I hope I do.
S: You do.
S: I could say "The bear is...
T: Now don't say this word if you know it, okay. This is supposed to be the word you don't know.
S: Oh, I know that.
T: Oh you do? You're just so smart.
S: Kosher? I know, don't tell us.
S: I'm going to tell it.
T: Okay, now. If you don't know this word,
S: I do.
T: You've got to think about -- what does a bear do in a cave all winter. It begins with what letter, Lowell?
S: H.
T: Okay. Ends with?
S: ing.
T: What's it going to be, Jim?
S: Hibernating.
T: Good. All right? You see how that works? Now, let's try one on a sheet of paper...

Part 3: Guided Practice (Application)

This part of the lesson consists of (1) teacher-directed practice, guided questions, student responses, corrective feedback to reinforce part of a skill or a whole new skill or concept; to identify incorrect student acquisition of skills; and to illustrate whole new concepts or skills in the context of their normal use with less shaping of responses by the teacher, and (2) applications--no written responses; use of textbook, teacher-directed questions. The teacher guides the practice in these ways:

1. Worksheets handed out or sentences on board printed out.
2. Group does one or two items
   a. Students read to themselves.
   b. Teacher asks a question.
   c. Student responds.
   d. Teacher gives positive or corrective feedback.
3. Students go ahead and work out other examples and teacher monitors students' written responses.
4. When group has a problem, the teacher stops and goes over the item with students.

The teacher guides the application in these ways.

1. Teacher indicates place in text and asks students to read.
2. Teacher asks a question requiring students to explain how they used a strategic process.
3. General praise or corrective feedback.

Direct practice occurred when the teacher gave a worksheet and went through items with the students. The interaction during this part of the lesson is illustrated by the following.

T: . . . read the first one to yourself, and tell me how you're going to figure out what that word should be there.
S: Want me to read it?
T: And everyone else read it to yourself while he's doing it. Did you read it to yourself already?
S: No.

T: Okay, do that. Now how are you going to figure out what goes in that blank? What are you going to think to yourself? Shhh.
S: Under?
T: Okay, how did you figure that out?
S: It starts with a u.
T: It starts with a u and--does it make sense?
S: Yes.
T: All right, good. So you should say under. Okay, good. Now. All right, I want you to finish this at your seats, and one of the things that we've got to do, gang, by the way . . . when you get these papers done from now on, put them on my desk. Don't bring them up here. Well, actually it's Miss S.'s desk. Put them on her desk. Okay?
S: Yeah.

Guided application gave students and teacher the opportunity to use an entire skill or concept in text and allowed the teacher to assess each pupil's level of skill or concept acquisition. When used for the second purpose, guided application followed practice sessions. So, during guided practice/application reading processes were taught, practiced, and applied. As a part of the closure, assignments were given to the students to complete before the next time the teacher met with them. Thus, the students left the group and returned to their seats to complete the independent student part of the lesson.

Part 4: Independent Practice and Application

This part of the lesson consisted of independent work assigned to students following the explanation of a new skill or strategy. The independent practice and application give students the opportunity to replicate a behavior several times and to apply their newly acquired behavior in the context of its normal use.

Students work alone, but seek help when they determine they need it. Their written products are one type of evidence of task completion and achievement, as are their answers to the teacher's earlier verbal comprehension questions. The steps are simple. Students complete task as

assigned, keep work to turn in to teacher the next day, or put the work in a previously designated box for correction and feedback.

Summary The research participant's lessons followed two types of organization. The first was a teacher-directed format consisting of an introduction of new information and an interaction with students about this information. The second was independent practice/application in which students worked alone on what the teacher had presented.

Is There Evidence of a Connection Between Explanation and Outcome?

The fifth research question focused on the connection between explanation and pupil outcomes. The research participant normally taught two lessons per week from September through May, with the exception of 10-15 days when lessons were not held due to conflicts in schedules. The pretest and posttest scores for the reading groups A and B can be seen in Table 1. The average gain scores for the readers in Group A (low group) was 1.10 years in vocabulary and 1.22 years in comprehension as measured in the Gates-McGinitie, Form B. The mean gain in Group B (high group) was 1.38 years in vocabulary and 1.63 years in comprehension.

The test scores ranged from a decrease of .4 to an increase of 4.3 in comprehension. The vocabulary scores ranged from an increase of .1 to 2.7. Data from this study does not help us explain the wide range in student gains.

Table 1

Vocabulary and Comprehension Score for Groups A and B

Pretest	Posttest	Gain
Group A (Low Group)		
Voc/Comp	Voc/Comp	Voc/Comp
1. 2.4/3.6	4.1/4.3	= +1.7/+.7
2. 2.5/2.8	4.1/5.3	= +1.6/+2.6
3. 2.5/2.6	3.1/5.6	= +.6/3.0
4. 2.7/2.6	3.5/--	= +.8/?
5. 2.7/3.2	3.5/2.8	= +.8/-.4
	Mean Gain	1.10/1.22
Group B (High Group)		
1. 5.6/7.4	8.3/11.7	= +2.7/+4.3
2. 5.3/4.1	5.5/5.8	= +.2/+1.7
3. 5.3/7.4	7.0/8.5	= +1.7/+1.1
4. 6.6/7.4	6.7/7.3	= +.1/-.1
5. 5.6/7.4	7.5/9.1	= +1.9/+1.7
6. 6.6/7.4	8.3/8.5	= +1.7/+1.1
	Mean Gain	1.38/1.63

Note. Voc = vocabulary; Comp = comprehension

No clear relationship between instruction and gains emerged. Further experimental work must be done to establish the connection between teacher explanation and pupil outcomes.

Summary of Findings

The study produced descriptive findings in three categories: (1) Characteristics of an "expert's" instructional explanation were identified,

(2) the interactions between teacher and pupils were characterized, and (3) two dominant lesson formats were found. Based on the data available, no relationship between instruction and student gains emerged.

Discussion

This study was designed to provide rich descriptive data illustrating what an expert does when providing explicit explanation in reading. The goal was to generate such description to further conceptualize the nature of instructional explanation. This goal was achieved. However, besides providing rich descriptive data regarding explanation, the study also revealed a disparity between what the research participant did when explaining as a practicing teacher and the way he conceptualized explanation behavior for his methods-course students. Consequently, this discussion focuses first on what was learned about the nature of explanation and then examines the disparity between the research participant's conceptualization of explanation and what he actually did as a practicing teacher.

The Nature of Explanation

As noted at the outset of this paper, the study of explicit explanation was originally based on a conception in which explanation was equated with "teacher talk" in which the teacher made expository statements about what was being taught, why it was important and how to do it. This case study has identified three aspects of instructional explanation which go beyond a simple concept of expository teacher talk.

The first characteristic noted regards the content of the lessons. The content for this research participant was strategic reading processes. This is different from the content found in basals or in traditional undergraduate reading courses, where the focus is on basic skills and the

reading of graded selections. The basic process that the research participant taught as the overriding organizer was "What do I do when what I am reading doesn't make sense?" This acted as a prerequisite series of strategic processes, and started with determining whether or not something did or didn't make sense. This seemed to be especially helpful to low group students who didn't think about whether or not what they read made sense. This overall view of reading as a sense-making activity which readers control by monitoring their own comprehension and applying strategies to repair breakdowns when they occur dominated the research participant's instructional explanation. Hence, it became clear that the nature of explanation is influenced by the content being taught. The instruction assumed a distinctive character by virtue of focusing on strategic control rather than on automaticity of skills or fluency in the reading of stories.

The second characteristic regarded establishing links with students. The research participant originally described the role of the teacher in explanation as directive. The teacher engaged students in thinking about (not just listening to) the lesson content. The student's role was characterized as following the lead of the teacher, responding to direct teacher questions, doing individual practice work, and participating in guided application. However, it was apparent that the research participant's explanation actually involved the students more actively than his description. A major aspect of his explanation was to link his thinking with pupil thinking, which he did primarily by employing interactive (rather than expository) techniques. This interactive aspect of instructional explanation makes the explanatory process much more complex than anticipated.

The third characteristic regards the role of spontaneously generated explanations. While the original conception focused on planned explanations generated in preactive instructional settings, the research participant's actual teaching included numerous examples of "on-the-spot" teaching. For instance, he decided to change examples or to proceed with more explanation when pupils were not getting the idea caused confusion for the pupils. On other occasions, the research participant stopped the lesson in order to do further planning before he continued. Sometimes, the spontaneously generated explanations were not helpful. When the spontaneously generated examples created links with pupil thinking and illustrated the broad application of the strategic process, they tended to be effective; when they did not, they were less effective. The role of such spontaneous explanation and the need to understand how to generate helpful explanations "on-the-spot" was a major descriptive finding.

Different Perspectives in Explanation

The research participant qualified as an "expert" in instructional explanation by virtue of his role in studying and in promoting his technique. However, this study revealed some inconsistencies between what he said about explanation and what he did when he explained in an actual teaching situation.

For instance, he taught preservice and inservice teachers that lessons start with new content or a new task. This is not what he did in practice. Generally, lessons started with a link to a previous lesson. Also, he taught teachers that the interactive part of a lesson is a teacher question and pupil answer period driven by the teacher's thinking alone rather than by the teacher making links with pupil thinking. While he demonstrated longitudinal, interactive teaching in the real classroom, he espoused a

self-contained, teacher-dominated explanation in his teacher education classes.

Similarly, the research participant gave little attention to management concerns when talking to teachers about instructional explanation. However, activity or lesson flow was a primary concern of his during interviews, particularly in October, November, and the early part of January. His concern for the flow of the lessons ranged from:

a. flow within lesson and between groups (both of these focused on management but for the purpose of content clarity), to

b. the flow of a day's lesson to the next day's lesson, to

c. the flow of a series of lessons into each other, to

d. the flow of one series of lessons and the strategic process to another strategic process and that series of lessons.

These concerns took precedence over explanation early in the year. The research participant socialized the students to a particular type of instructional system, and it was not until he had this established that he began to focus on explanation of strategic reading processes.

Conclusion

In conclusion, as teacher educators we have gained two major insights from this study. First, it appears that instruction is much more complex than models, opinion, or much of the previous research have led us to believe. It seems that the influences of teacher knowledge, beliefs/values, and skills must be studied as a part of new studies of effective teaching. This seems critical if we are to qualitatively improve preservice and inservice programs from their current mode of training to programs that educate and produce professionals. Second, theoretical models of instruction have little or no reliability as far as identification of essential and critical variables. Models which based on

observations of experts also must be studied over time as they are applied in classrooms. Without this the environmental, curricular, and pupil influences that affect teacher behavior are not integrated into the models. What at first glance appears to be critical, at the end of three weeks or three months may be irrelevant or secondary when one views the implementation of models over time.

Teacher educators must give thought to the implementation of instructional strategies as they related to K-8 or 7-12 curriculum with which teachers are faced. Teacher educators who can place their recommendations for methods within the real school and classroom context may have a better chance of having teachers use what they are taught.